



IBM Tivoli Storage Manager V7.1.1 helps improve data protection and disaster recovery capabilities and extends incremental forever backup to Microsoft Hyper-V

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At a glance

IBM® Tivoli® Storage Manager V7.1.1 products offer the following new capabilities:

- IBM Tivoli Storage Manager V7.1.1 and IBM Tivoli Storage Manager Extended Edition V7.1.1 help reduce the cost of ownership through delivering optimal global data management with different policies on the primary and secondary Tivoli Storage Manager servers for replication.
- IBM Tivoli Storage Manager for Virtual Environments V7.1.1 extends incremental forever backup for Microsoft™ Hyper-V without deploying an agent in guest and simplifies single file restore for VMware environments.
- IBM Tivoli Storage Manager Operations Center V7.1.1 adds integrated administrative actions for schedule creation, and improved client and server diagnostics from a single user interface.
- New front-end capacity licensing option for IBM Tivoli Storage Manager Suite for Unified Recovery and IBM Tivoli Storage Manager Suite for Unified Recovery Entry and Enterprise Editions

For ordering, contact your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: YE001).

Overview

IBM Tivoli Storage Manager

IBM Tivoli Storage Manager and IBM Tivoli Storage Manager Extended Edition V7.1.1 enables lower cost disaster recovery and enhances resilience with the following features:

- Improved replication flexibility that allows different policies to be defined on the primary and secondary Tivoli Storage Manager servers. This enables optimal management of resources for disaster recovery and simplifies compliance with long term retention requirements.
- Automated recovery of damaged, source server volumes or data from a replication server for local disaster. This could be used to replace local copy storage pools, reducing total cost of ownership.
- Enhanced security with NIST SP800-131 compliance and support of 256-bit AES Encryption.

The IBM Tivoli Storage Manager Operations Center V7.1.1 component adds integrated administrative actions, and improved client and server diagnostics for the backup environment with the following features:

- New scheduling interface provides at a glance view of complex backup schedules and provides the ability to create and modify client schedules.
- Ability to email reports on backup client and server status without logging into the managing server.
- Centralized log views for Microsoft Windows™ and Linux™ backup-archive clients from a single user interface to enable more efficient problem diagnosis and resolution.
- Backend capacity reporting for IBM Tivoli Storage Manager Suite for Unified Recovery products.

The above enhancements for Tivoli Storage Manager Extended Edition, other than node replication improvements, are also available in IBM System Storage Archive Manager V7.1.1.

IBM Tivoli Storage Manager for Virtual Environments V7.1.1 helps improve backup and recovery management for virtual environments with the following new features:

- Expanded Microsoft Hyper-V support to provide single-pass incremental forever backups to reduce backup windows and save storage cost without deploying an agent in guest
- Improved ease of use for file-level recovery scenarios in VMware environments involving Linux Logical Volume Manager, Microsoft Windows dynamic disks, and Microsoft Windows GUID partitioning table disks
- Integration with the VMware vSphere Web Client enabling VMware administrators to restore virtual machines from Tivoli Storage Manager and view task progress directly from the vSphere Web Client interface

IBM Tivoli Storage Manager for Mail V7.1.1 helps improve usability and performance when restoring folders with individual mailbox restores, and supports Microsoft Exchange role-based access control.

There are two new capacity licensing options for IBM Tivoli Storage Manager Suite for Unified Recovery V7.1.1 that offer more simplified pricing and licensing with a tiered per terabyte (TB) front-end capacity metric.

- **IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1.1**
- **IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End V7.1.1**

The IBM Tivoli Storage Manager Site for Unified Recovery product bundles include the following products:

- IBM Tivoli Storage Manager Extended Edition V7.1.1: Scalable enterprise-class backup and restore, archive, and disaster recovery
- IBM Tivoli Storage Manager for Virtual Environments V7.1.1: Advanced protection and flexible recovery of VMware and Microsoft Hyper-V environments
- IBM Tivoli Storage Manager for Databases V7.1.1: Protection of Oracle and Microsoft SQL data
- IBM Tivoli Storage Manager for Enterprise Resource Planning V6.4.2: Helps protect SAP and SAP HANA system data more efficiently, consistently, and reliably
- IBM Tivoli Storage Manager for Mail V7.1.1: Helps secure IBM Domino® and Microsoft Exchange data; granular restore of Microsoft Exchange objects
- IBM Tivoli Storage Manager for Storage Area Networks V7.1.1: Helps maximize storage network connections for Tivoli Storage Manager servers and client computers
- IBM Tivoli Storage Manager for Space Management V7.1.1: Software that moves inactive data to reclaim online disk space

- IBM Tivoli Storage Manager FastBack® V6.1: Advanced data protection and near-instant recovery for Microsoft Windows and Linux servers
- IBM Tivoli Storage Manager FastBack for Bare Machine Recovery V6.1: Restore a Microsoft Windows or Linux Server operating system volume within an shorter timeframes
- IBM Tivoli Storage Manager FastBack for Exchange V6.1: Fast and easy recovery of individual email objects

IBM Tivoli Storage Manager Suite Unified Recovery Entry - Front End includes the same 10 products. It is suitable for organizations with less than 100 TB front-end capacity, with no more than 2 Tivoli Storage Manager servers.

The enhancements noted above are also included in the following bundles:

- IBM Tivoli Storage Manager Suite for Unified Recovery
- IBM Tivoli Storage Manager Suite for Unified Recovery Entry
- IBM Tivoli Storage Manager Suite for Unified Recovery - Front End
- IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End
- IBM Tivoli Storage Manager Entry

IBM Tivoli Storage FlashCopy® Manager V4.1.1

IBM Tivoli Storage FlashCopy Manager V4.1.1 extends its integration with storage array mirroring for VMware environments, provides usability enhancements for VMware and Microsoft Windows environments, and also delivers performance improvements for Microsoft Exchange mailbox restore. In addition, IBM Tivoli Storage FlashCopy Manager V4.1.1 support for third-party storage devices is extended to include EMC VNX and Hitachi Data Systems Virtual Storage Platform and Hitachi Unified Storage, storage devices, when used with V1.4 of the Rocket Device Adapter Pack for IBM Tivoli Storage FlashCopy Manager.

Key prerequisites

IBM Tivoli Storage Manager operating systems supported:

- AIX®
- Microsoft Windows
- Linux on System x®, Linux on System p®, and Linux on System z®
- Solaris
- HP-UX

Planned availability date

- September 12, 2014: Electronic
- October 10, 2014: DVD media

Description

IBM Tivoli Storage Manager V7.1.1 and IBM Tivoli Storage Manager Extended Edition V7.1.1 help reduce backup windows and enhance resilience:

- Different replication policies for retention time and number of versions can be defined on the primary and secondary Tivoli Storage Manager server, for flexible management of disaster recovery at different sites and optimal use of resources.
- Repairs volumes for source server from replication server for local disaster. This could be used to replace local copy storage pool tapes, reducing total cost of ownership.

- More security with NIST SP800-131 compliance and support of 256-bit AES Encryption.

Tivoli Storage Manager for Virtual Environments V7.1.1 helps to improve backup and recovery management for virtual environments with the following new features:

- Expanded Microsoft Hyper-V support to provide incremental forever backups, automatic discovery of virtual machines, automatic migration of virtual machines between hosts, restoration of virtual machines to alternate locations, and file level recovery from image backups
- Simplified file-level recovery for VMware environments with a more automated mount process supporting Linux Logical Volume Management, Microsoft Windows dynamic disks Microsoft Windows GUID partitioning table disks
- Integration with the VMware vSphere Web Client enabling VMware administrators to drive Tivoli Storage Manager recovery actions for selected virtual machines and view task progress directly from the vSphere Web Client interface
- More control over access rights allowing administrators to limit user access by data center

Tivoli Storage Manager Operations Center V7.1.1 provides more administrative actions within the GUI. There is improved visibility for data protection diagnostics with these capabilities:

- View, create, and modify client schedules and client schedule associations
- Visibility into server maintenance schedules for processes such as expiration, migration, reclamation, database, and storage pool backups
- Centralized log views for Microsoft Windows 32 bit, Microsoft Windows 64 bit, and Linux 64 bit backup-archive clients from one central GUI to enable more efficient problem diagnosis and resolution
- Email reports on client coverage, status, and overall Tivoli Storage Manager server health
- More control over alert definition configuration and management
- Actions to manage storage pools such as editing storage pool properties and manual initiation of storage pool migration or reclamation
- More detailed visibility to volume information, policy details, and active policy sets
- More security with NIST SP800-131 compliance
- Advanced filtering for table views for more targeted listing of such items such as clients, servers, storage pools, and storage devices that meet specific search criteria
- Backend capacity reporting for Tivoli Storage Manager Suite for Unified Recovery products' licensing needs

Tivoli Storage Manager V7.1.1 Backup-Archive Client adds support including:

- Enhanced security with support of 256-bit AES Encryption.
- Microsoft Windows 2012 R2 support.
- Solaris x86 support.

IBM Tivoli Storage Manager for Mail V7.1.1 adds support and new features including:

- Individual mailbox restore usability and performance enhancements for restoring folders and messages from the mailbox restore browser.
- Support for Microsoft Exchange role-based access control to limit rights available to backup and restore administrators and automatic validation of permissions during configuration.
- Microsoft Windows 2012 R2 support.

IBM Tivoli Storage Manager for Databases V7.1.1 adds support including:

- Microsoft SQL Server 2014 support.
- Microsoft Windows 2012 R2 support.

IBM Tivoli Storage Manager for Enterprise Resource Planning V6.4.2

supports Microsoft Windows 2012 and Solaris 11:

- For the Data Protection for SAP for DB2® 6.4.2 component: IBM DB2 10.1 and IBM DB2 10.5 with BLU Acceleration, which speeds analytics and reporting using dynamic in-memory columnar technologies
- For the Data Protection for SAP for Oracle 6.4.2 component: Support BR*Tools version 7.4

Tivoli Storage Manager for Space Management V7.1.1 adds new features including:

- Improved efficiency in handling failed cluster nodes in large General Parallel File System (GPFS™) Hierarchical Storage Management (HSM) clusters that enable better cooperation and communication between HSM nodes.
- More control over stub file recall that provides the ability to:
 - Customize when recalls are performed
 - Change settings at the individual file level versus the file system level
 - Change settings while recall processing is ongoing

IBM Tivoli Storage Manager for z/OS® Media V7.1.1 and IBM Tivoli Storage Manager Extended Edition for z/OS Media V7.1.1 provide entitlement to:

- Either IBM Tivoli Storage Manager V7.1.1 or IBM Tivoli Storage Manager Extended Edition V7.1.1 for AIX and Linux on System z.
- IBM Tivoli Storage Manager Operations Center V7.1.1.
- IBM Tivoli Storage Manager Media Server V6.3.

IBM Tivoli Storage Manager Fastback for Workstations V7.1.1 enables continuous data protection functionality and instant recovery for Microsoft Windows desktops and laptops with the addition of the following new features:

- Enhanced block level backups to increase the frequency of incremental backups, and reduce network bandwidth and storage capacity consumption.
- Central Administration Console migration from IBM Tivoli Integrated Portal to IBM WebSphere® Liberty Profile for a smaller footprint of around 500 MB and faster installation times with new installs in as little as 10 minutes.
- Enhanced visualization of client, server, or historical storage utilization reports.

Tivoli Storage Flashcopy Manager V4.1.1 adds support for the following features:

- Microsoft Windows:
 - SQL 2014 support
 - Role Based Access Control for Microsoft Exchange backup and restore
 - Microsoft Exchange individual mailbox recovery performance and usability enhancements
 - Usability enhancements for SQL
- VMware:
 - Metro Mirror and Global Mirror integration
 - NIST SP800-131 compliance
 - Configuration Wizard
 - Initial integration with VMware Web Client

Accessibility by people with disabilities

A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at

http://www.ibm.com/able/product_accessibility/index.html

Reference information

For more information about IBM Tivoli Storage Manager V7.1 family of products, refer to Software Announcement [213-447](#), dated October 29, 2013.

For more information about IBM Tivoli Storage Manager Entry V7.1, IBM Tivoli Storage Manager for z/OS Media V7.1, and IBM Tivoli Storage Manager Extended Edition for z/OS Media V7.1, refer to Software Announcement [214-213](#), dated April 15, 2014.

For more information about support for IBM Tivoli Storage Manager for Storage Area Networks platform, refer to Software Announcement [211-372](#), dated October 11, 2011.

Availability of national languages

Description	Availability date	Language
IBM Tivoli Storage Manager products	09/12/14	English

Program number

Program number	VRM	Program name
5608-E01	7.1.1	IBM Tivoli Storage Manager
5725-Q58	7.1.1	IBM Tivoli Storage Manager Entry
5608-E02	7.1.1	IBM Tivoli Storage Manager Extended Edition
5608-E03	7.1.1	IBM System Storage® Archive Manager
5608-E04	7.1.1	IBM Tivoli Storage Manager for Databases
5608-E05	6.4.2	IBM Tivoli Storage Manager for Enterprise Resource Planning
5608-E06	7.1.1	IBM Tivoli Storage Manager for Mail
5608-E12	7.1.1	IBM Tivoli Storage Manager for Space Management
5608-E07	7.1.1	IBM Tivoli Storage Manager for Storage Area Networks
5725-A44	7.1.1	IBM Tivoli Storage Manager for Virtual Environments
5608-E13	7.1.1	IBM Tivoli Storage Manager HSM for Windows
5724-Z12	7.1.1	IBM Tivoli Storage Manager Suite for Unified Recovery
5725-R37	7.1.1	IBM Tivoli Storage Manager Suite for Unified Recovery - Front End
5725-H25	7.1.1	IBM Tivoli Storage Manager Suite for Unified Recovery Entry
5725-R38	7.1.1	IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End
5724-Y96	7.1.1	IBM Tivoli Storage Manager Fastback for Workstations
5724-S64	7.1.1	IBM Tivoli Storage Manager Fastback for Workstations Starter Edition
5724-X94	4.1.1	IBM Tivoli Storage FlashCopy Manager (for Passport Advantage®)
5608-ACB	4.1.1	IBM Tivoli Storage FlashCopy Manager (for AAS)

Product identification number

IBM Tivoli Storage FlashCopy Manager (for AAS)

Program SW Subscription and
Support 1 Year PID
no charge registration
PID number number

5608-ACB 5608-FCY

SW Subscription and
Support 2 Year PID
registration number

5608-R16

SW Subscription and
Support 3 Year PID
registration number

5608-R13

SW Subscription and
Support 4 Year PID
registration number

5608-R17

SW Subscription and
Support 5 Year PID
registration number

5608-R18

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld ID and password are required (use IBM ID).

<https://www.ibm.com/partnerworld/mem/sla.jsp?num=214-340>

Education support

Comprehensive education for IBM Tivoli products is offered through Worldwide Tivoli Education Delivery Services. A wide range of training options are available, including classes led by instructors, learning on demand, on-site training, and blended learning solutions.

For additional information, visit

<http://www-306.ibm.com/software/tivoli/education/>

Offering Information

Product information is available via the Offering Information website

<http://www.ibm.com/common/ssi>

Also, visit the Passport Advantage website

<http://www.ibm.com/software/passportadvantage>

Publications

Documentation in English and all available translations will be available in the IBM Knowledge Center on the general availability date. The Tivoli product documentation is found under the Cloud & Smarter Infrastructure category.

<http://ibm.biz/IBMKCgo>

Links to downloadable PDFs will also be provided in the Knowledge Center.

Technical information

Specified operating environment

Hardware and software requirements

Tivoli Storage Manager supported devices

Refer to the following websites for the list of devices that are supported by Tivoli Storage Manager (5608-E01), Tivoli Storage Manager Extended Edition (5608-E02), and IBM System Storage Archive Manager (5608-E03). Libraries that have more than 4 drives or more than 48 tape slots require a license for Tivoli Storage Manager Extended Edition.

For Tivoli Storage Manager supported devices for AIX, HP-UX, Solaris, and Microsoft Windows, visit

http://www.ibm.com/software/sysmgmt/products/support/IBM_TSM_Supported_Devices_for_AIXH_PSUNWIN.html

For Tivoli Storage Manager supported devices for Linux, visit

http://www.ibm.com/software/sysmgmt/products/support/IBM_TSM_Supported_Devices_for_Linux.html

Hardware and software requirements for Tivoli Storage Manager V7.1.1 products are available at the website listed with each product below.

IBM Tivoli Storage Manager (5608-E01) (refer to Note 1)

<http://www.ibm.com/support/docview.wss?uid=swg21243309>

IBM Tivoli Storage Manager Extended Edition (5608-E02) (refer to Note 1)

<http://www.ibm.com/support/docview.wss?uid=swg21243309>

IBM System Storage Archive Manager (5608-E03) (refer to Note 1)

<http://www.ibm.com/support/docview.wss?uid=swg21243309>

IBM Tivoli Storage Manager for Mail (5608-E06)

<http://www.ibm.com/support/docview.wss?uid=swg21219345>

IBM Tivoli Storage Manager for Storage Area Networks (5608-E07)

<http://www.ibm.com/support/docview.wss?uid=swg21321214>

IBM Tivoli Storage Manager for Space Management (5608-E12)

<http://www.ibm.com/support/docview.wss?uid=swg21321200>

IBM Tivoli Storage Manager for HSM for Windows (5608-E13)

<http://www.ibm.com/support/docview.wss?uid=swg21319299>

IBM Tivoli Storage Manager for Databases (5608-E04)

<http://www.ibm.com/support/docview.wss?uid=swg21218747>

IBM Tivoli Storage Manager for Virtual Environments (5725-A44)

<http://www.ibm.com/support/docview.wss?uid=swg21505139>

IBM Tivoli Storage Manager FastBack for Workstations (5724-Y96)

<http://www-01.ibm.com/support/docview.wss?uid=swg21643334>

IBM Tivoli Storage Manager FastBack for Workstations Starter Edition (5724-S64)

<http://www-01.ibm.com/support/docview.wss?uid=swg21643334>

For a list of products included in the offering bundle, and the technical requirements for each of the included products, refer to the information portal website listed for each product below.

IBM Tivoli Storage Manager Entry V7.1.1 (5725-Q58)

<http://www.ibm.com/support/docview.wss?uid=swg27041477>

IBM Tivoli Storage Manager Suite for Unified Recovery V7.1.1 (5724-Z12)

<http://www.ibm.com/support/docview.wss?uid=swg27039963>

IBM Tivoli Storage Manager Suite for Unified Recovery Entry V7.1.1 (5725-H25)

<http://www.ibm.com/support/docview.wss?uid=swg27039964>

IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1.1 (5725-R37)

<http://www.ibm.com/support/docview.wss?uid=swg27039963>

IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End V7.1.1 (5725-R38)

<http://www.ibm.com/support/docview.wss?uid=swg27039963>

Note 1: Tivoli Storage Manager V7.1, Tivoli Storage Manager Extended Edition V7.1, and IBM System Storage Archive Manager V7.1 have the same hardware, software, and supported device requirements.

The program's specifications and specified operating environment information may be found in documentation accompanying the program, if available, such as a readme file, or other information published by IBM, such as an announcement letter. Documentation and other program content may be supplied only in the English language.

Companion products

Customers who have a SAN environment may consider purchasing IBM Tivoli Storage Productivity Center in addition to Tivoli Storage Manager. The customer can benefit from the ability to more fully manage their storage environment, including backup and recovery, management of disk performance, management of the physical network of the SAN, logical connections between the devices, and capacity management of file systems and databases. Additionally, IBM Tivoli Storage Productivity Center complements Tivoli Storage Manager. The customer who leverages these products can benefit from the ability to extend policies and file reports to directly initiate a Tivoli Storage Manager's backup or archive when

certain threshold conditions are met, or in the case of file reports, if conditions deem it necessary.

Performance considerations

Tivoli Storage Manager product's performance will vary depending upon your particular configuration, the client and server options, and customization.

IBM Electronic Support

The IBM Support Portal is your gateway to technical support. This includes IBM Electronic Support tools and resources, for software and hardware, to help save time and simplify support. The Electronic Support tools can help you find answers to questions, download fixes, troubleshoot, automate data collection, submit and track problems through the Service Request online tool, and build skills. All these tools are made available through your IBM support agreement, at no additional charge. Read about the Electronic Support portfolio of tools

<http://ibm.com/electronicssupport>

Access the IBM Support Portal

<http://ibm.com/support>

Access the online Service Request tool

<http://ibm.com/support/servicerequest>

Planning information

Direct customer support

Installation and technical support is provided by Global Services. For more information call 800-IBM-4YOU (426-4968).

For technical support or assistance, contact your IBM representative or visit

<http://www.ibm.com/support>

Packaging

Tivoli Storage Manager V7.1.1 products are distributed with:

- International Program License Agreement (Z125-3301)
- License Information document
- DVD media
- Publications (refer to the [Publications](#) section)

These programs, when downloaded from a website, contain the applicable IBM license agreement and License Information, if appropriate, and will be presented for acceptance at the time of installation of the program. For future reference, the license and License Information will be stored in a directory such as LICENSE.TXT.

Security, auditability, and control

Tivoli Storage Manager V7.1 products use the security and auditability features of the operating system software. The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Software Services

IBM Software Services has the breadth, depth, and reach to manage your services needs. You can leverage the deep technical skills of our lab-based, software services team and the business consulting, project management, and infrastructure expertise of our IBM Global Services team. Also, we extend our IBM Software Services reach through IBM Business Partners to provide an extensive portfolio of capabilities. Together, we provide the global reach, intellectual capital, industry insight, and technology leadership to support a wide range of critical business needs.

To learn more about IBM Software Services or to contact a Software Services sales specialist, visit

<http://www.ibm.com/software/sw-services/>

Licensing metric definitions and pricing examples

Licensing metric definitions

Client Device

Client Device is a unit of measure by which the Program can be licensed. A Client Device is a single user computing device or special purpose sensor or telemetry device that requests the execution of or receives data for execution a set of commands, procedures, or applications from or provides data to another computer system that is typically referred to as a server or is otherwise managed by the server. Multiple Client Devices may share access to a common server. A Client Device may have some processing capability or be programmable to allow a user to do work. Examples include, but are not limited to actuators, appliances, automated teller machines, automatic meter readers, cash registers, disk drives, desktop computers, kiosks, notebook computers, personal digital assistant, point-of-sale terminals, sensors, smart meters, tape drives, and technical workstations. Licensee must obtain entitlements for every Client Device which runs, provides data to, uses services provided by, or otherwise accesses the Program and for every other computer or server on which the Program is installed.

Processor Value Unit (PVU)

PVU is a unit of measure by which the program can be licensed. The number of PVU entitlements required is based on the processor technology defined within the PVU table by processor vendor, brand, type, and model number at

http://www.ibm.com/software/lotus/passportadvantage/pvu_licensing_for_customers.html

and the number of processors made available to the program. IBM continues to define a processor, for the purpose of PVU-based licensing, to be each processor core on a chip. A dual-core processor chip, for example, has two processor cores.

Licensee can deploy the program using either full capacity licensing or virtualization capacity (sub-capacity) licensing according to the Passport Advantage Sub-Capacity Licensing Terms (refer to the webpage below). If using full capacity licensing, licensee must obtain PVU entitlements sufficient to cover all activated processor cores* in the physical hardware environment made available to or managed by the program, except for those servers from which the program has been permanently removed. If using virtualization capacity licensing, licensee must obtain entitlements sufficient to cover all activated processor cores made available to or managed by the program, as defined according to the Virtualization Capacity License Counting Rules at

http://www.ibm.com/software/lotus/passportadvantage/Counting_Software_licenses_using_specific_virtualization_technologies.html

* An activated processor core is a processor core that is available for use in a physical or virtual server, regardless of whether the capacity of the processor core can be or is limited through virtualization technologies, operating system commands, BIOS settings, or similar restrictions.

Instead of the entitlements required for the Program directly, Licensee must obtain PVU entitlements for this program sufficient to cover the processor cores for the systems on which the resources managed or processed by the program reside.

Terabyte

Terabyte is a unit of measure by which the program can be licensed. A terabyte is 2 to the 40th power bytes. Licensee must obtain an entitlement for each terabyte of storage available to the program.

IBM System Storage Archive Manager terabyte capacity

IBM System Storage Archive Manager terabyte capacity includes primary disk storage pool size combined with the amount of utilized primary removable media storage used by the IBM System Storage Archive Manager server.

Capacity does not include:

- Copy storage pools for the space-managed data that reside on disk.
- Copy storage pools for the space-managed data that reside on removable media.
- Space used on the IBM Tivoli Storage Manager server for any purpose other than the primary storage of space-managed data.
- Disk on the host being space managed.

A virtual tape library (VTL) is considered a removable media device, so capacity is based on utilization.

The minimum amount of capacity that can be purchased is 1 terabyte.

Partial capacity will be rounded up to the next whole number of terabytes.

Additional capacity must be added in increments of 1 Terabyte.

Tiered terabytes (1-12), (13-32), (33-64), (65-100), (101-250), (251+)

Terabyte (1-12), Terabyte (13-32), Terabyte (33-64), Terabyte (65-100), Terabyte (101-250), and Terabyte (251+) is a unit of measure by which the program can be licensed. Proofs of Entitlement (PoEs) are based on the number of terabytes available to the program. A terabyte is 2 to the 40th power bytes. Licensee must obtain sufficient entitlements required for licensee's environment. The entitlements are specific to the program and may not be exchanged, interchanged, or aggregated with entitlements of another program.

Instead of the entitlements required for the program directly, Licensee must obtain terabyte entitlements for the program sufficient to cover the storage managed by the program.

IBM Tivoli Storage Manager Suite for Unified Recovery terabyte capacity

Tiered terabytes (1-100), (101-250), (251-500), (501-750), (751-1,250), (1,251-2,000), (2001+)

Terabyte (1-100), Terabyte (101-250), Terabyte (251-500), Terabyte (501-750), Terabyte (751-1,250), Terabyte (1,251-2,000), Terabyte (2,001+) is a unit of measure by which the program can be licensed. PoEs are based on the number of terabytes available to the program. A terabyte is 2 to the 40th power bytes. Licensee must obtain sufficient entitlements required for licensee's environment. The entitlements are specific to the program and may not be exchanged, interchanged, or aggregated with entitlements of another program.

Instead of the entitlements required for the program directly, licensee must obtain terabyte entitlements for the program sufficient to cover the storage managed by the program.

For Tivoli Storage Manager Suite for Unified Recovery, Licensee must obtain sufficient entitlements required for all data stored in the designated Tivoli Storage Manager primary storage pool volumes and for all data stored in the designated Tivoli Storage Manager FastBack repository volumes.

IBM Tivoli Storage Manager Suite for Unified Recovery - Front End terabyte capacity

Tiered terabytes (1-100), (101-250), (251-500), (501-750), (751-1,250), (1,251-2,000), (2001+)

Terabyte (1-100), Terabyte (101-250), Terabyte (251-500), Terabyte (501-750), Terabyte (751-1,250), Terabyte (1,251-2,000), Terabyte (2,001+) is a unit of measure by which the program can be licensed. PoEs are based on the number of terabytes available to the program. A terabyte is 2 to the 40th power bytes. Licensee must obtain sufficient entitlements required for licensee's environment. The entitlements are specific to the program and may not be exchanged, interchanged, or aggregated with entitlements of another program.

Instead of the entitlements required for the program directly, licensee must obtain terabyte entitlements for the program sufficient to cover the data managed by the program. For Tivoli Storage Manager Suite for Unified Recovery Front End, licensee must obtain sufficient entitlements required for the aggregate amount of data protected by the program.

IBM Tivoli Storage Manager Suite for Unified Recovery - Archive Option terabyte capacity

Entitlements for the new Tivoli Storage Manager Suite for Unified Recovery - Archive Option component apply only to data classified as archive data within Tivoli Storage Manager that results from running an archive operation, and the data must reside on tape or VTL within the primary storage pool. An archive operation is designated either via the Tivoli Storage Manager's user interface itself or through Tivoli Storage Manager's application programming interface (API). Data stored on virtual tape appears to Tivoli Storage Manager as physical tape. The Tivoli Storage Manager Suite for Unified Recovery - Archive Option price applies to the capacity level recognized by Tivoli Storage Manager (which equates to the amount of data sent to the virtual tape). Subsequent deduplication of data within a VTL does not reduce the capacity level recognized by Tivoli Storage Manager.

IBM Tivoli Storage Manager Suite for Unified Recovery - ProtecTIER® Option terabyte capacity

Licensee must obtain sufficient entitlements for the total aggregate usable physical capacity of all the IBM ProtecTIER repositories that are available to the IBM Tivoli Storage Manager primary storage pool, excluding the capacity for Disaster Recovery sites used for replication only.

Managed Server

Managed Server is a unit of measure. A server is a physical computer that is comprised of processing units, memory, and input/output capabilities and that executes requested procedures, commands or applications for one or more users or client devices. Where racks, blade enclosures, or other similar equipment is being employed, each separable physical device (for example, a blade or rack-mounted device) that has the required components is considered itself a separate server. Licensee must obtain Managed Server entitlements for each server managed.

Standby or backup systems

For programs running or resident on backup machines, IBM defines three types of situations: cold, warm, and hot. In cold and warm situations, a separate entitlement

for the copy on the backup machine is normally not required and typically no additional charge applies. In a hot backup situation, the customer needs to acquire other license or entitlements sufficient for that server. All programs running in backup mode must be solely under the customer's control, even if running at another enterprise's location.

As a practice, the following are definitions and allowable actions concerning the copy of the program used for backup purposes.

Cold: A copy of the program may reside, for backup purposes, on a machine as long as the program is not started. There is no additional charge for this copy.

Warm: A copy of the program may reside for backup purposes on a machine and is started, but is idling, and is not doing any work of any kind. There is no additional charge for this copy.

Hot: A copy of the program may reside for backup purposes on a machine, is started, and is doing work. The customer must acquire a license or entitlements for this copy and there will generally be an additional charge.

Doing work includes, for example, production, development, program maintenance, and testing. It also could include other activities such as mirroring of transactions, updating of files, synchronization of programs, data, or other resources (for example, active linking with another machine, program, database or other resource, and so on), or any activity or configurations that would allow an active hot switch or other synchronized switch over between programs, databases, or other resources to occur. In the case of a program or system configuration that is designed to support a high availability environment by using various techniques (for example, duplexing, mirroring of files, or transactions, maintaining a heartbeat, active linking with another machine, program, database, or other resource), the program is considered to be doing work in the hot situation and a license or entitlement must be purchased.

High Availability and Disaster Recovery (HADR)

To use HADR to replicate from one Tivoli Storage Manager server (with bundled DB2) to another Tivoli Storage Manager server (with bundled DB2), no additional DB2 licensing is required.

To use HADR to replicate from a Tivoli Storage Manager server (with bundled DB2) to a nonbundled DB2 instance, the licensee must purchase 100 Processor Value Units (PVUs) to obtain a license for DB2 Enterprise Edition (bundled).

Pricing examples

Pricing examples for Tivoli Storage Manager

The following examples are provided to illustrate the customer's licensing requirements.

References to processor-based licensing **do not** represent the actual number of entitlements required. Entitlement requirements are Value Unit based. Processors referenced in these examples represent the designated measurement on which the required number of Value Unit entitlements will be calculated. The number of Value Units required per processor will depend on the processor type.

Notes:

- When using Processor Value Unit based licensing, license entitlements for IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition are required for all managed servers including the managing server. Licensing entitlement is Processor Value Unit based and both full capacity and sub-capacity licensing is offered.
- A Proof of Entitlement (PoEs) for IBM Tivoli Storage Manager Extended Edition is required to use any of the following function: node replication (and the use of REPLICATE NODE command as a target server), disaster recovery manager,

Network Data Management Protocol (NDMP), support of tape libraries (including virtual tape libraries) with more than 4 drives or more than 48 slots.

- An IBM Tivoli Storage Manager Extended Edition server can only be used to manage IBM Tivoli Storage Manager Extended Edition components or clients.
- A Tivoli Storage Manager Extended Edition server can act as a target server for disaster recovery purposes, with the exception of node replication, for Tivoli Storage Manager servers.
- The use of node replication (REPLICATE NODE command) requires the same end-user entitlements for both the server that sends the data (source server) and the server that receives the data (target server).
- Tivoli Storage Manager or Tivoli Storage Manager Extended Edition licensing requirements for General Parallel File System (GPFS) and IBM SONAS require Tivoli Storage Manager license entitlements for each node performing data movement.
- Entitlement conversions to Tivoli Storage Manager Suite for Unified Recovery require entitlement of Tivoli Storage Manager Extended Edition. If there is entitlement of Tivoli Storage Manager, then a trade up to Tivoli Storage Manager Extended Edition is required as a precondition to the entitlement conversion.
- All Network Attached Storage (NAS) devices that are being backed up require entitlement for IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition. If NDMP is used, then entitlement for IBM Tivoli Storage Manager Extended Edition is required. If a proxy server or data mover is being used, then that server does not require additional entitlement.
- An IBM Tivoli Storage Manager for Storage Area Networks entitlement is required for each IBM Tivoli Storage Manager server that is sharing a library where an IBM Tivoli Storage Manager acts as the library manager. An entitlement is required for each library client and library manager. An IBM Tivoli Storage Manager for Storage Area Networks license entitlement is required for each system that performs LAN-free operations.

Go to the [Reference information](#) section for more information about IBM Tivoli Storage Manager for Storage Area Networks.

- Client Device entitlements for IBM Tivoli Storage Manager and IBM Tivoli Storage Manager Extended Edition are interchangeable.

Scenario 1: The customer wants to do basic archiving and retrieval for all of the LAN-connected servers in its network. The customer environment consists of the following:

- 20 Client devices (laptops)
- 10 4-way servers
- Five 8-way mail servers
- Five 16-way database servers
- One 32-way server
- One 8-way managing server

The customer must obtain the following entitlements for IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition:

Systems managed	Quantity in customer environment	Total client device entitlements required
Client devices	20	20
Total client device entitlements		20

Systems managed	Quantity in customer environment	Processor entitlements required

4-way	10	40
8-way	5	40
16-way	5	80
32-way	1	32
8-way (managing server)	1	8
Total processor entitlements		200

The customer must obtain the following additional entitlements for IBM Tivoli Storage Manager for Databases:

Systems managed	Quantity in customer environment	Processor entitlements required
16-way	5	80
Total processor entitlements		80

Note: This example is valid for any database application supported by IBM Tivoli Storage Manager for Databases. IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition is required for each system with a database managed by IBM Tivoli Storage Manager for Databases.

The customer must obtain the following additional entitlements for IBM Tivoli Storage Manager for Mail:

Systems managed	Quantity in customer environment	Processor entitlements required
8-way	5	40
Total processor entitlements		40

Note: This example is valid for any mail application supported by IBM Tivoli Storage Manager for Mail. IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition is required for each system with a mail server managed by IBM Tivoli Storage Manager for Mail.

Scenario 2: VMware environment with VMware vStorage APIs for Data Protection

The customer environment consists of the following:

- ESX server 1 with four virtual servers, three running as file servers, and the fourth running as a Microsoft SQL Server.
- ESX server 2 with four virtual servers, three running as file servers, and the fourth running as a Microsoft Exchange server.
- Both ESX servers are backed up using the vStorage APIs from a proxy server.
- Each virtual machine is assigned one processor core.
- The customer is backing up only the file servers.

Notes:

- IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition full capacity entitlement requires that all physical system cores on VMware ESX servers, being backed up by the proxy server, are to be entitled.
- IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition sub-capacity entitlement requires that the virtual cores, assigned to virtual machines on VMware ESX servers being backed up by the proxy server, are to be entitled.
- VMware vStorage API for Data Protection proxy server does not require entitlement for Tivoli Storage Manager, Tivoli Storage Manager Extended Edition, or Tivoli Storage Manager for Virtual Environments.

Full capacity requirement

Quantity of processor core entitlements required	ESX 1 (4 way)	ESX 2 (4 way)	Proxy server (4 way)	Total
TSM or TSM Extended Edition	4	4	0	8

Sub-capacity requirement

Quantity of processor core entitlements required	ESX 1 (4 way)	ESX 2 (4 way)	Proxy server (4 way)	Total
TSM or TSM Extended Edition	3	3	0	6

Note: Only the virtual machines running as file servers require entitlement. Since these are the only machines being backed up, the customer does not back up the fourth virtual machine.

Scenario 3: VMware environment with IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition backup agent installed inside a virtual machine and the customer is backing up Oracle and Microsoft Exchange

The customer environment consists of the following:

- ESX server 1 with four virtual servers, three running as file servers, and the fourth running as an Oracle server.
- ESX server 2 with four virtual servers, three running as file servers, and the fourth running as a Microsoft Exchange server.
- Each virtual machine is assigned one processor core.

Notes:

- The full capacity IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition entitlement requirement is based on physical system cores and not virtual cores.
- The sub-capacity IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition entitlement requirement is based on virtual cores.

Full capacity requirements

Quantity of processor core entitlements required	ESX 1 (4 way)	ESX 2 (4 way)	Total
TSM or TSM Extended Edition	4	4	8
TSM for Databases	4	0	4
TSM for Mail	0	4	4

Note: If VMware vMotion is running across all ESX servers, enabling migration of virtual machines between the two ESX servers, then the ESX cluster is treated as the server at full capacity, which requires all cores on all ESX servers to be entitled. If vMotion is running in the above scenario, then IBM Tivoli Storage Manager Extended Edition, IBM Tivoli Storage Manager for Databases, and IBM Tivoli Storage Manager for Mail will each require eight cores to be entitled.

Sub-capacity requirements

Quantity of processor core entitlements required	ESX 1 (4 way)	ESX 2 (4 way)	Total
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Tivoli Storage Manager or Tivoli Storage Manager Extended Edition	4	4	8
TSM for Database s	1	0	1
TSM for Mail	0	1	1

Note: If VMware vMotion is running across all ESX servers, enabling migration of virtual machines between the two ESX servers, entitlement requirements would not change from the above required entitlements.

Scenario 4: VMware environment with IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition backup agent running inside a virtual machine.

The customer environment consists of the following:

- ESX server 1 with four virtual servers, three running as file servers, and the fourth running as an Oracle server.

Notes:

- The full capacity IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition entitlement requirement is based on physical system cores and not virtual cores.
- The sub-capacity IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition entitlement requirement is based on virtual cores.

Full capacity requirements

Quantity of processor core entitlements required	ESX 1 (4 way)	Total
TSM or TSM Extended Edition	4	4
TSM for Databases	4	4

Sub-capacity requirements

Quantity of processor core entitlements required	ESX 1 (4 way)	Total
TSM or TSM Extended Edition	4	4
TSM for Databases	1	1

Scenario 5: Network Attached Storage (NAS) Device backup

The customer environment consists of the following:

- The NAS device is being backup using NDMP.
- One 4-way NAS device.
- One 4-way server (acting as a data mover).
- One 8-way Tivoli Storage Manager Server.

The customer must obtain the following entitlements for IBM Tivoli Storage Manager Extended Edition:

	Customer environment	Entitlements required
4-way NAS Device	4	4
4-way Data Mover	4	0

8-way TSM Server	8	8
Total processor entitlements		12

If in addition to the NAS device being backed up, the data mover has locally attached data that is being backed up to the Tivoli Storage Manager Server, the customer must obtain the following entitlements for IBM Tivoli Storage Manager Extended Edition.

	Customer environment	Entitlements required
4-way NAS Device	4	4
4-way Data Mover	4	4
8-way TSM Server	8	8
Total processor entitlements		16

Pricing examples for IBM System Storage Archive Manager

Scenario 1

A customer has an IBM System Storage Archive Manager server with a 5 terabytes (TB) primary disk storage pool and a removable media storage pool that will store 4 TB of data within the next 12 months. The data in the primary storage pools will be copied for off-site protection to a copy pool. The customer has designated 10 TB of removable media for a copy storage pool.

The customer needs to purchase 9 TB of IBM System Storage Archive Manager.

Primary disk storage pool	Removable media storage pool	Capacity	Required entitlements
5 TB	4 TB	9 TB	9 TB of IBM System Storage Archive Manager for Windows

Scenario 2 (additional capacity)

A customer had purchased 9 TB of IBM System Storage Archive Manager. 12 months after that initial purchase, the customer is managing 9 TB of data. Over the next 12 months, the customer estimates they will need to manage an additional 2.4 TB worth of data.

The customer should purchase an additional 3 TB of IBM System Storage Archive Manager.

Primary disk storage pool	Removable media storage pool	Capacity	Required entitlements
5 TB	6.4 TB	11.4 TB	12 TB of IBM System Storage Archive Manager for Windows

Pricing examples for Tivoli Storage Manager HSM for Windows

Entitlement for Tivoli Storage Manager HSM for Windows is based on the TB capacity being space managed (migrated). Capacity is defined as the primary HSM disk storage pool size combined with the amount of utilized HSM removable media storage pool. Storage pools are configured on the IBM Tivoli Storage Manager server. The minimum amount of capacity that can be purchased is 1 TB. Partial capacity will be rounded up to the next whole number of TB. Additional capacity must be added in multiples of 1 TB. Capacity does not include:

- Copy storage pools for the space-managed data that reside on disk
- Copy storage pools for the space-managed data that reside on removable media

Scenario 1

A customer wants to space manage 4.25 TB of files from six Microsoft Windows file servers. This means 4.25 TB of files will be migrated from their current location to the Tivoli Storage Manager server's primary HSM storage pools. The migrated files will be replaced with references to the original file. The data in the primary HSM storage pools will be copied for off-site protection to a copy pool. The customer has designated 0.25 TB of disk for an HSM disk storage pool, 4 TB for a HSM removable media storage pool, and 6 TB of removable media for a copy storage pool.

The customer needs to purchase 5 TB of Tivoli Storage Manager HSM for Windows.

HSM disk storage pool	HSM removable media storage pool	Capacity	Required entitlements
0.25 TB	4 TB	4.25 TB	5 TB of Tivoli Storage Manager HSM for windows

Scenario 2 (additional capacity)

A customer had purchased 5 TB of Tivoli Storage Manager HSM for Windows. Over the last 12 months, the customer consumed the 5 TB of HSM capacity they purchased initially in addition to an additional 1 TB. Over the next 12 months, they expect the amount of space managed data will grow to 9 TB total. They will continue to keep the 0.25 TB for the HSM disk storage pool and thus store the remaining 8.75 TB in the removable media storage pool.

The customer should purchase an additional 4 TB of Tivoli Storage Manager HSM for Windows.

HSM disk storage pool	HSM removable media storage pool	Capacity	Required entitlements
0.25 TB	8.75 TB	9 TB	9 TB of Tivoli Storage Manager HSM for windows

Pricing examples for Tivoli Storage Manager for Virtual Environments

Protecting VMware environments using Tivoli Storage Manager for Virtual Environments

The customer environment consists of the following:

- vSphere (host) 1 with 12 virtual machines (guests).
- vSphere (host) 2 with 19 virtual machines (guests).
- All of the guests on both vSphere servers (hosts) are protected using Tivoli Storage Manager for Virtual Environments V6.2.

Notes:

- Either IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition are prerequisite products for Tivoli Storage Manager for Virtual Environments and require entitlement on all physical system cores on the vSphere hosts. This entitlement applies only to the vSphere hosts protected by Tivoli Storage Manager for Virtual Environments.
- Tivoli Storage Manager for Virtual Environments is physically installed on a centralized vStorage backup server, which is a secondary or proxy machine that is used to perform the backup using the vStorage application programming

interface (API). This secondary or proxy machine can be either a physical machine or a virtual machine. A single vStorage backup server can be used to protect one or more virtual machines that reside on one or more vSphere servers. The customer can use one or more vStorage backup servers.

- Entitlements for Tivoli Storage Manager for Virtual Environments, Tivoli Storage Manager, and Tivoli Storage Manager Extended Edition are not required on the vStorage backup server. Tivoli Storage Manager for Virtual Environment, Tivoli Storage Manager, and Tivoli Storage Manager Extended Edition entitlements are only required for the managed environment, which is the processor cores on the vSphere hosts running the virtual machines being protected.
- Tivoli Storage Manager for Virtual Environments can also be licensed under sub-capacity software licensing terms, if required. Processor Value Unit (PVU) sub-capacity licensing lets you license an eligible software product for less than the full capacity (or total number of processors) of your server or group of servers. It provides the licensing granularity needed to leverage various multicore chip and virtualization technologies. The sub-capacity software licensing terms are documented in the International Passport Advantage Agreement (IPAA) Attachment for Sub-capacity Licensing Terms (Sub-capacity Licensing Attachment).
- IBM Tivoli Storage Manager for Virtual Environments sub-capacity entitlement requires that the virtual cores, assigned to virtual machines on VMware ESX servers being backed up by the proxy server, are to be entitled.

Full capacity requirement

Scenario 1: Use a single vStorage backup server to protect both vSphere hosts

Quantity of processor core entitlements required	vSphere host 1 (4 way)	vSphere host 2 (8 way)	vStorage backup server (2 way)	Total
Tivoli Storage Manager or Tivoli Storage Manager Extended Edition	4	8	0	12
Tivoli Storage Manager for Virtual Environments	4	8	0	12

Scenario 2: Use two (2 way) vStorage backup servers to protect only the larger vSphere host

Quantity of processor core entitlements required	vSphere host 1 (4 way)	vSphere host 2 (8 way)	vStorage backup server 1 (2 way)	vStorage backup server 2 (2 way)	Total
Tivoli Storage Manager or Tivoli Storage Manager Extended Edition	0	8	0	0	8
Tivoli Storage Manager for Virtual Environments	0	8	0	0	8

Pricing example for Tivoli Storage Manager Suite for Unified Recovery and Tivoli Storage Manager Suite for Unified Recovery - Front End

Tivoli Storage Manager Suite for Unified Recovery and Tivoli Storage Manager Suite for Unified Recovery - Front End use the same tiered TB pricing model. The model consists of seven tiers that are to be used cumulatively. All tiers must be used in order (begin with the first tier and move on to the second tier, and so on) to arrive at the desired total amount of TB.

Tivoli Storage Manager Suite for Unified Recovery - Front End measures capacity on protected data at the source, instead of using capacity at Tivoli Storage Manager primary storage pool on the backend.

Based on the actual TB tiers, the following example is an illustration, using variables for prices, that shows how to calculate the prices:

Tier TB range (actual)	\$K/TB
1-100	x
101-250	y
251-500	z
501-750	a
751-1,250	b
1,251-2,000	c
2,001+	d
Total TB ordered	How it is charged
50 TB	$(x * 50 \text{ TB})$
150 TB	$(x * 100 \text{ TB}) + (y * 50 \text{ TB})$
500 TB	$(x * 100 \text{ TB}) + (y * 150 \text{ TB}) + (z * 250 \text{ TB})$
1,200 TB	$(x * 100 \text{ TB}) + (y * 150 \text{ TB}) + (z * 250 \text{ TB}) +$ $(a * 250 \text{ TB}) + (b * 450 \text{ TB})$
1,800 TB	$(x * 100 \text{ TB}) + (y * 150 \text{ TB}) + (z * 250 \text{ TB}) +$ $(a * 250 \text{ TB}) + (b * 500 \text{ TB}) + (c * 550 \text{ TB})$
2,500 TB	$(x * 100 \text{ TB}) + (y * 150 \text{ TB}) + (z * 250 \text{ TB}) +$ $(a * 250 \text{ TB}) + (b * 500 \text{ TB}) + (c * 750 \text{ TB}) +$ $(d * 500 \text{ TB})$

Pricing example for Tivoli Storage Manager Suite for Unified Recovery Archive Option

Scenario 1

A client has Tivoli Storage Manager Suite for Unified Recovery Archive Option with a 5 TB primary disk storage pool and a removable media storage pool that will store 4 TB of data within the next 12 months. The data in the primary storage pools will be copied for off-site protection to a copy pool. The client has designated 10 TB of removable media for a copy storage pool.

The client must purchase 9 TB of Tivoli Storage Manager Suite for Unified Recovery Archive Option.

Primary disk storage pool	Removable media storage pool	Capacity	Required entitlements
5 TB	4 TB	9 TB	9 TB of Tivoli Storage Manager Suite for Unified Recovery Archive Option

Scenario 2 (additional capacity)

A client purchased 9 TB of Tivoli Storage Manager Suite for Unified Recovery Archive Option. Twelve months after that initial purchase, the client is managing 9 TB of data. Over the next 12 months, the client estimates they will need to manage an additional 2.4 TB worth of data.

The client should purchase an additional 3 TB of Tivoli Storage Manager Suite for Unified Recovery Archive Option.

Primary disk storage pool	Removable media storage pool	Capacity	Required entitlements
5 TB	6.4 TB	11.4 TB	12 TB of Tivoli Storage Manager Suite for Unified Recovery Archive Option

Pricing example for Tivoli Storage Manager Suite for Unified Recovery ProtecTIER Option

If a customer has IBM ProtecTIER with a total aggregate usable physical capacity, excluding any capacity for disaster recovery sites used for replication only, of 20 TB that they will use as part of their Tivoli Storage Manager primary storage pool, they require Proof of Entitlements (PoEs) of 20 TB of IBM Tivoli Storage Manager Suite for Unified Recovery ProtecTIER Option, regardless of the amount utilized. So, for example, in the case where the IBM ProtecTIER has a total aggregate usable physical capacity of 20 TB and the customer has 10 TB stored, the licensing requirement is for 20 TB.

Note: Entitlements for Tivoli Storage Manager Suite for Unified Recover ProtecTIER Option and Tivoli Storage Manager Suite for Unified Recovery standard tiers are not interchangeable and are separately licensed.

Pricing example for Tivoli Storage Manager Suite for Unified Recovery Entry

Tivoli Storage Manager Suite for Unified Recovery Entry supports a combined maximum of 100 terabytes (TB) per enterprise in the designated Tivoli Storage Manager primary storage pool volumes and for all data stored in the designated Tivoli Storage Manager FastBack repository volumes. In addition, a maximum of two Tivoli Storage Manager servers are supported per enterprise.

If a customer has 10 TB in their Tivoli Storage Manager primary storage pool and 10 TB in their Tivoli Storage Manager FastBack repository, the customer requires Proofs of Entitlements (PoEs) of 20 TB of Tivoli Storage Manager Suite for Unified Recovery Entry.

If a customer reaches the maximum of 100 TB under management and foresees the need for more licenses, the customer will require a trade up to Tivoli Storage Manager Suite for Unified Recovery (5724-Z12).

If a customer requires more than two Tivoli Storage Manager servers, the customer will require a trade up to Tivoli Storage Manager Suite for Unified Recovery (5724-Z12).

Pricing example for Tivoli Storage Manager Suite for Unified Recovery Entry - Front End

Tivoli Storage Manager Suite for Unified Recovery Entry - Front End supports a maximum of 100 TB per enterprise for the aggregate amount of data protected by the program. In addition, a maximum of two Tivoli Storage Manager servers are supported per enterprise.

If a customer has 10 TB protected data, the customer requires Proofs of Entitlements (PoEs) of 10 TB of Tivoli Storage Manager Suite for Unified Recovery Entry - Front End.

If a customer reaches the maximum of 100 TB protected data and foresees the need for more licenses, the customer will require a trade up to Tivoli Storage Manager Suite for Unified Recovery - Front End (5725-R37).

If a customer requires more than two Tivoli Storage Manager servers, the customer will require a trade up to Tivoli Storage Manager Suite for Unified Recovery (5725-R37).

Pricing example for Tivoli Storage Manager Entry products

- A managed server for IBM Tivoli Storage Manager Entry is a server that is managed or protected by one of the components of this offering.
- Use is supported for up to 50 managed servers per enterprise, up to five of which can be virtual host servers.
- Use is supported with 100 or fewer nodes registered to Tivoli Storage Manager per enterprise. The replicated nodes do not count towards the 100 node count.
- Tivoli Storage Manager Entry is only supported on Microsoft Windows, Linux x86, and Linux on POWER® platform.
- When using Per Managed Server licensing, entitlement for IBM Tivoli Storage Manager Entry is required for all managed servers including the managing server.
- Customers who are entitled to IBM Tivoli Storage Manager Entry are allowed to use node replication capability.

Scenario 1

The customer wants to do backup and recovery operations for all LAN-connected servers in its network. The customer environment consists of the following:

- One managing server
- Ten 4-way file servers
- Two 8-way mail servers

Entitlements required for the above environment are:

Product description	Quantity of entitlement required
IBM Tivoli Storage Manager	1
IBM Tivoli Storage Manager (Backup Assistant client)	10
IBM Tivoli Storage Manager for Mail	2
Total TSM Entry Entitlement:	13

Scenario 2

The customer wants to do backup and recovery operations for all LAN-connected servers in its network. The customer environment consists of the following:

- One 16-way managing server
- Two 16-way VMware ESX Host servers
- Six 8-way mail servers
- Six 16-way database servers

Entitlements required for the above environment are:

Product description	Quantity of entitlement required
IBM Tivoli Storage Manager	1
IBM Tivoli Storage Manager for Virtual Environments	2
IBM Tivoli Storage Manager for Mail	6
IBM Tivoli Storage Manager for Databases	6
Total TSM Entry entitlement:	15

Scenario 3

The customer wants to do backup and recovery operations for all LAN-connected servers in its network. The customer environment consists of the following:

- One managing server
- Two VMware ESX Host servers
- Eight mail servers; four of which are running in VM hosted by 1 ESX host
- Nine database servers; two of which are running in VMs hosted by ESX host

Entitlements required for the above environment are:

Product description	Quantity of entitlement required
IBM Tivoli Storage Manager	1
IBM Tivoli Storage Manager for Virtual Environments	2
IBM Tivoli Storage Manager for Mail	8
IBM Tivoli Storage Manager for Databases	9
Total TSM Entry entitlement:	20

Ordering information

This product is only available via Passport Advantage. It is not available as shrinkwrap.

These products may only be sold directly by IBM or by authorized IBM Business Partners for Software Value Plus.

For more information about IBM Software Value Plus, visit

http://www.ibm.com/partnerworld/page/svp_authorized_portfolio

To locate IBM Business Partners for Software Value Plus in your geography for a specific Software Value Plus portfolio, visit

<http://www.ibm.com/partnerworld/wps/bplocator/>

Product group: Tivoli Storage Management

Product category: Tivoli Storage Manager

Product Identifier Descriptions	PID number
IBM Tivoli Storage Manager	5608-E01
IBM Tivoli Storage Manager Extended Edition	5608-E02
IBM System Storage Archive Manager	5608-E03
IBM Tivoli Storage Manager for Databases	5608-E04
IBM Tivoli Storage Manager for Enterprise Resource Planning	5680-E05
IBM Tivoli Storage Manager for Mail	5608-E06
IBM Tivoli Storage Manager for Storage Area Networks	5608-E07
IBM Tivoli Storage Manager for Space Management	5608-E12
IBM Tivoli Storage Manager HSM for windows	5608-E13
IBM Tivoli Storage Manager Fastback for workstations Starter Edition	5724-S64
IBM Tivoli Storage Manager Fastback for workstations	5724-Y96
IBM Tivoli Storage Manager Suite for Unified Recovery	5724-Z12
IBM Tivoli Storage Manager for Virtual Environments	5725-A44
IBM Tivoli Storage Manager Suite for Unified Recovery Entry	5725-H25

IBM Tivoli Storage Manager Entry	5725-Q58
IBM Tivoli Storage Manager Suite for Unified Recovery - Front End	5725-R37
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End	5725-R38
IBM Tivoli Storage FlashCopy Manager	5724-X94 (for PPA)
IBM Tivoli Storage FlashCopy Manager	5608-ACB (for AAS)

Passport Advantage trade up

You must have previously acquired a license for the following precursor product to be eligible to acquire an equivalent license of the trade-up product.

Precursor product	Trade-up product	Trade-up part number
(5608-TE5) IBM Tivoli Storage Manager Express® License + SW S&S 12 Mo	(5608-E01) IBM Tivoli Storage Manager 10 PVU License + SW S&S 12 Mo	D59V5LL
(5608-E01) IBM Tivoli Storage Manager License + SW S&S 12 Mo	(5608-E02) IBM Tivoli Storage Manager Extended Edition 10 PVU License + SW S&S 12 Mo	D56FILL
(5608-TE5) IBM Tivoli Storage Manager for Express License + SW S&S 12 Mo	(5608-E02) IBM Tivoli Storage Manager Extended Edition 10 PVU License + SW S&S 12 Mo	D59V6LL
(5608-TEQ) IBM Tivoli Storage Manager for SQL Microsoft License + SW S&S 12 Mo	(5608-E04) IBM Tivoli Storage Manager for Databases 10 PVU License + SW S&S 12 Mo	D59V3LL
(5608-TEX) IBM Tivoli Storage Manager Express for Microsoft Exchange License + SW S&S 12 Mo	(5608-E06) IBM Tivoli Storage Manager for Mail 10 PVU License + SW S&S 12 Mo	D59V4LL
(5725-H25) IBM Tivoli Storage Manager Suite for Unified Recovery Entry Terabyte (1-100) License + SW S&S 12 Mo	(5724-Z12) IBM Tivoli Storage Manager Suite for Unified Recovery Terabyte (1-100) License + SW S&S 12 Mo	D0Q3ZLL
(5725-R38) IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End Terabyte (1-100) License + SW S&S 12 Mo	(5725-R37) IBM Tivoli Storage Manager Suite for Unified Recovery - Front End Terabyte (1-100) License + SW S&S 12 Mo	D15T3LL

Consult your IBM representative if you have any questions.

Passport Advantage customer: Media pack entitlement details

Customers with active maintenance or subscription for the products listed are entitled to receive the corresponding media pack.

Media packs description	Part number
IBM Tivoli Storage Manager V7.1.1 Multiplatform, ML Media Pack (5608-E01)	BJ15WML
IBM Tivoli Storage Manager Entry V7.1.1 Multiplatform, ML Media Pack (5725-Q58)	BJ16AML
IBM Tivoli Storage Manager Extended Edition V7.1.1 Multiplatform, ML Media Pack (5608-E02)	BJ15XML
IBM System Storage Archive Manager V7.1.1 Multiplatform, ML Media Pack (5608-E03)	BJ15ZML
IBM Tivoli Storage Manager for Databases V7.1.1 Multiplatform, ML Media Pack (5608-E04)	BJ160ML
IBM Tivoli Storage Manager for Mail V7.1.1 Multiplatform, ML Media Pack (5608-E06)	BJ161ML
IBM Tivoli Storage Manager for Storage Area Network V7.1.1 Multiplatform, ML Media Pack (5608-E07)	BJ162ML
IBM Tivoli Storage Manager for Space Mgmt V7.1.1 Multiplatform, ML Media Pack (5608-E12)	BJ163ML
IBM Tivoli Storage Manager for HSM Windows V7.1.1 Multiplatform, ML Media Pack (5608-E13)	BJ164ML
IBM Tivoli Storage Manager for Virtual Environments V7.1.1 Multiplatform, ML Media Pack (5725-A44)	BJ167ML
IBM Tivoli Storage Manager Suite for Unified Recovery V7.1.1 Multiplatform, ML Media Pack (5724-Z12)	BJ166ML
IBM Tivoli Storage Manager Suite for Unified Recovery Archive Option V7.1.1 Multiplatform, ML Media Pack (5724-Z12)	BJ16CML
IBM Tivoli Storage Manager Suite for Unified Recovery - ProtecTIER V7.1.1 Multiplatform, ML Media Pack (5724-Z12)	BJ16DML
IBM Tivoli Storage Manager Suite for Unified Recovery Entry V7.1.1 Multiplatform, ML Media Pack (5725-H25)	BJ15YML
IBM Tivoli Storage Manager Fastback for Workstations V7.1.1 Multiplatform, ML Media (5724-Y96)	BJ165ML
IBM Tivoli Storage Manager Fastback for Workstations Starter Edition V7.1.1 Multiplatform, ML Media (5724-S64)	BJ168ML
IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1 Multiplatform, ML Media Pack (5725-R37)	BJ15MML
IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1.1 Multiplatform, ML Media Pack (5725-R37)	BJ16EML
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End V7.1 Multiplatform, ML Media Pack (5725-R38)	BJ15NML
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End V7.1.1 Multiplatform,	BJ16BML

ML Media Pack (5725-R38)

IBM Tivoli Storage Manager for Enterprise Resource Planning V6.4.2 Multiplatform, ML Media Pack (5608-E05) BJ169ML

IBM Tivoli Storage FlashCopy Manager V4.1.1 Multiplatform, ML Media Pack BJ15UML

New licensees

Orders for new licenses will be accepted now.

Shipment will begin on the planned availability date.

Basic license

Ordering information for Passport Advantage

Passport Advantage allows you to have a common anniversary date for Software Subscription and Support (SW S&S) renewals, which can simplify management and budgeting for eligible new versions and releases (and related technical support) for your covered products. The anniversary date, established at the start of your Passport Advantage Agreement, will remain unchanged while your Passport Advantage Agreement remains in effect. New software purchases will initially include twelve full months of Software Subscription and Support (also referred to as Software Maintenance). Software Subscription and Support in the second year (the first year of renewal) can be prorated to be coterminous with your common anniversary date. Thereafter, all Software Subscription and Support (Software Maintenance) will renew at the common anniversary date for twelve full months of Software Subscription and Support (Software Maintenance).

Refer to the IBM International Passport Advantage Agreement and to the *IBM Software Support Handbook* for specific terms relating to, and a more complete description of, technical support provided through Software Subscription and Support (Software Maintenance).

Tivoli Storage Manager

The quantity to be specified for the Passport Advantage part numbers in the following tables is per 10 Processor Value Units, per client device, and per terabyte. To order for Passport Advantage, specify the desired part number and quantity.

Description	Part number
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IBM Tivoli Storage Manager (5608-E01)

10 Processor Value Units:

License and SW S&S 12 Months (Refer to Note 1)	D56FULL
Annual SW S&S Renewal	E029KLL
SW S&S Reinstatement 12 Months	D56FWLL
Lnx on z - License and SW S&S 12 Months	D56Q5LL
Lnx on z - Annual SW S&S Renewal	E02B7LL
Lnx on z - SW S&S Reinstatement 12 Months	D56Q6LL
Tradeup from Tivoli Storage Manager Express License and SW S&S 12 Months	D59V5LL

Client devices:

License and SW S&S 12 Months	D5158LL
Annual SW S&S Renewal	E00AJLL
SW S&S Reinstatement 12 Months	D515ALL

Description	Part number
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IBM Tivoli Storage Manager Entry (5725-Q58)

Per managed server:	
License and SW S&S 12 Months	D14MFLL
Annual SW S&S Renewal	E0JFRL
SW S&S Reinstatement 12 Months	D14MGLL

Description	Part number
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IBM Tivoli Storage Manager Extended Edition (5608-E02)

10 Processor Value Units:	
License and SW S&S 12 Months	D56FELL
(Refer to Note 1)	
Annual SW S&S Renewal	E029ELL
SW S&S Reinstatement 12 Months	D56FFLL
Lnx on z - License and SW S&S 12 Months	D56FJLL
Lnx on z - Annual SW S&S Renewal	E029GLL
Lnx on z - SW S&S Reinstatement 12 Months	D56FKLL
Tradeup from Tivoli Storage Manager	
License and SW S&S 12 Months	D56FILL
Tradeup from Tivoli Storage Manager for Express	
License and SW S&S 12 Months	D59V6LL

Client devices:	
License and SW S&S 12 Months	D51MKLL
Annual SW S&S Renewal	E00IAL
SW S&S Reinstatement 12 Months	D51MMLL

Note 1: Client licenses are interchangeable between IBM Tivoli Storage Manager and IBM Tivoli Storage Manager Extended Edition.

Description	Part number
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IBM System Storage Archive Manager (5608-E03)

Per Terabyte (1-12)	
License and SW S&S 12 Months	D61H2LL
Annual SW S&S Renewal	E040YLL
SW S&S Reinstatement 12 Months	D61H3LL

Per Terabyte (13-32)	
License and SW S&S 12 Months	D61G7LL
Annual SW S&S Renewal	E040ILL
SW S&S Reinstatement 12 Months	D61G8LL

Per Terabyte (33-64)	
License and SW S&S 12 Months	D61GHLL
Annual SW S&S Renewal	E040NLL
SW S&S Reinstatement 12 Months	D61GILL

Per Terabyte (65-100)	
License and SW S&S 12 Months	D61GJLL
Annual SW S&S Renewal	E040PLL
SW S&S Reinstatement 12 Months	D61GKLL

Per Terabyte (101-250)	
License and SW S&S 12 Months	D61GLLL
Annual SW S&S Renewal	E040QLL
SW S&S Reinstatement 12 Months	D61GMML

Per Terabyte (251+)	
License and SW S&S 12 Months	D61GNLL
Annual SW S&S Renewal	E040RLL
SW S&S Reinstatement 12 Months	D61GPLL

Description	Part number
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IBM Tivoli Storage Manager for Databases (5608-E04)

10 Processor Value Units:

License and SW S&S 12 Months	D56D9LL
Annual SW S&S Renewal	E028WLL
SW S&S Reinstatement 12 Months	D56DALL
Tradeup from Tivoli Storage Manager for SQL Microsoft License and SW S&S 12 Months	D59V3LL
for zEnterprise® BladeCenter® Extension and Linux on System z 10 Processor Value Units (PVUs)	
License and SW S&S 12 Months	D0BTCLL
Annual SW S&S Renewal	E087QLL
SW S&S Reinstatement 12 Months	D0BTDLL
Description	Part number
IBM Tivoli Storage Manager for Enterprise Resource Planning V6.4.2 (5608-E05)	
10 Processor Value Units:	
License and SW S&S 12 Months	D56F7LL
Annual SW S&S Renewal	E029CLL
SW S&S Reinstatement 12 Months	D56FBLL
Description	Part number
IBM Tivoli Storage Manager for Mail (5608-E06)	
10 Processor Value Units:	
License and SW S&S 12 Months	D56Q3LL
Annual SW S&S Renewal	E02B6LL
SW S&S Reinstatement 12 Months	D56Q4LL
Lnx on z - License and SW S&S 12 Months	D56Q1LL
Lnx on z - Annual SW S&S Renewal	E02B5LL
Lnx on z - SW S&S Reinstatement 12 Months	D56Q2LL
Tradeup from Tivoli Storage Manager Express Microsoft Exchange License and SW S&S 12 Months	D59V4LL
Description	Part number
IBM Tivoli Storage Manager for Storage Area Network (5608-E07)	
10 Processor Value Units:	
License and SW S&S 12 Months	D56FPLL
Annual SW S&S Renewal	E029ILL
SW S&S Reinstatement 12 Months	D56FQLL
Client devices:	
License and SW S&S 12 Months	D51MYLL
Annual SW S&S Renewal	E00IELL
SW S&S Reinstatement 12 Months	D51N0LL
for zEnterprise BladeCenter Extension and Linux on System z 10 Processor Value Units (PVUs)	
Annual SW S&S Renewal	E07XCLL
License + SW S&S 12 Months	D0BE7LL
SW S&S Reinstatement 12 Months	D0BE8LL
Description	Part number
IBM Tivoli Storage Manager for Space Management (5608-E12)	
10 Processor Value Units:	
License and SW S&S 12 Months	D56FLLL
Annual SW S&S Renewal	E029HLL
SW S&S Reinstatement 12 Months	D56FMLL
Description	Part number
IBM Tivoli Storage Manager HSM for windows (5608-E13)	

Per terabytes:	
License and SW S&S 12 Months	D55H5LL
Annual SW S&S Renewal	E01ZBLL
SW S&S Reinstatement 12 Months	D55H6LL

Description	Part number
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IBM Tivoli Storage Manager for Virtual Environments (5725-A44)

10 Processor Value Units:	
License and SW S&S 12 Months	D0I2SLL
Annual SW S&S Renewal	E0BI0LL
SW S&S Reinstatement 12 Months	D0I2TLL

Description	Part number
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IBM Tivoli Storage Manager Suite for Unified Recovery (5724-z12)

Per Terabyte (1-100)	
License and SW S&S 12 Months	D0BM1LL
Annual SW S&S Renewal	E084XLL
SW S&S Reinstatement 12 Months	D0BM2LL
Tradeup from Tivoli Storage Manager Suite for Unified Recovery Entry Terabyte (1-100)	
License and SW S&S 12 Months	D0Q3ZLL

Per Terabyte (101-250)	
License and SW S&S 12 Months	D0BM9LL
Annual SW S&S Renewal	E0851LL
SW S&S Reinstatement 12 Months	D0BMALL

Per Terabyte (251-500)	
License and SW S&S 12 Months	D0BMBLL
Annual SW S&S Renewal	E0852LL
SW S&S Reinstatement 12 Months	D0BMCLL

Per Terabyte (501-750)	
License and SW S&S 12 Months	D0BMJLL
Annual SW S&S Renewal	E0856LL
SW S&S Reinstatement 12 Months	D0BMLLL

Per Terabyte (751-1,250)	
License and SW S&S 12 Months	D0BMKLL
Annual SW S&S Renewal	E0857LL
SW S&S Reinstatement 12 Months	D0BMMLL

Per Terabyte (1,251-2,000)	
License and SW S&S 12 Months	D0BMULL
Annual SW S&S Renewal	E085BLL
SW S&S Reinstatement 12 Months	D0BMWLL

Per Terabyte (2,001+)	
License and SW S&S 12 Months	D0BMVLL
Annual SW S&S Renewal	E085CLL
SW S&S Reinstatement 12 Months	D0BMXLL

Archive Option Per Terabyte	
License and SW S&S 12 Months	D0PCMLL
Annual SW S&S Renewal	E0DMPLL
SW S&S Reinstatement 12 Months	D0PCNLL

Archive Option Per Terabyte for Linux on z	
License and SW S&S 12 Months	D11CNLL
Annual SW S&S Renewal	E0IBSLL
SW S&S Reinstatement 12 Months	D11CPLL

ProtectTIER Option Per Terabyte	
License and SW S&S 12 Months	D10XWLL
Annual SW S&S Renewal	E0I67LL
SW S&S Reinstatement 12 Months	D10XXLL

for Linux System z Terabyte (1-100)

License and SW S&S 12 Months	D0QCXLL
Annual SW S&S Renewal	E0E11LL
SW S&S Reinstatement 12 Months	D0QCYLL
for Linux System z Terabyte (101-250)	
License and SW S&S 12 Months	D0QCZLL
Annual SW S&S Renewal	E0E12LL
SW S&S Reinstatement 12 Months	D0QD0LL
for Linux System z Terabyte (251-500)	
License and SW S&S 12 Months	D0QD1LL
Annual SW S&S Renewal	E0E13LL
SW S&S Reinstatement 12 Months	D0QD2LL
for Linux System z Terabyte (501-750) Annual SW	
License and SW S&S 12 Months	D0QD3LL
Annual SW S&S Renewal	E0E14LL
SW S&S Reinstatement 12 Months	D0QD4LL
for Linux System z Terabyte (751-1250) Annual SW	
License and SW S&S 12 Months	D0QD5LL
Annual SW S&S Renewal	E0E15LL
SW S&S Reinstatement 12 Months	D0QD6LL
for Linux System z Terabyte (1251-2000) Annual SW	
License and SW S&S 12 Months	D0QD7LL
Annual SW S&S Renewal	E0E16LL
SW S&S Reinstatement 12 Months	D0QD8LL
for Linux System z Terabyte (2001+) Annual SW	
License and SW S&S 12 Months	D0QD9LL
Annual SW S&S Renewal	E0E17LL
SW S&S Reinstatement 12 Months	D0QDALL
Description	Part number
IBM Tivoli Storage Manager Suite for Unified Recovery Entry (5725-H25)	
Per Terabyte (1-100)	
License and SW S&S 12 Months	D0Q3XLL
Annual SW S&S Renewal	E0DYELL
SW S&S Reinstatement 12 Months	D0Q3YLL
Description	Part number
IBM Tivoli Storage Manager Suite for Unified Recovery - Front End (5725-R37)	
Per Terabyte (1-100)	
License and SW S&S 12 Months	D15T1LL
Annual SW S&S Renewal	E0JV8LL
SW S&S Reinstatement 12 Months	D15T2LL
Tradeup from Tivoli Storage Manager Suite for Unified Recovery Entry - Front End Terabyte (1-100)	
License and SW S&S 12 Months	D15T3LL
Per Terabyte Linux on Sys z (1-100)	
License and SW S&S 12 Months	D15SVLL
Annual SW S&S Renewal	E0JV8LL
SW S&S Reinstatement 12 Months	D15SWLL
Per Terabyte (101-250)	
License and SW S&S 12 Months	D15TALL
Annual SW S&S Renewal	E0JV8LL
SW S&S Reinstatement 12 Months	D15TBLL
Per Terabyte Linux on Sys z (101-250)	
License and SW S&S 12 Months	D15T4LL
Annual SW S&S Renewal	E0JV8LL
SW S&S Reinstatement 12 Months	D15T5LL

Per Terabyte (251-500)	
License and SW S&S 12 Months	D15T8LL
Annual SW S&S Renewal	E0JV6LL
SW S&S Reinstatement 12 Months	D15T9LL
Per Terabyte Linux on Sys z (251-500)	
License and SW S&S 12 Months	D15TELL
Annual SW S&S Renewal	E0JV6LL
SW S&S Reinstatement 12 Months	D15TFLL
Per Terabyte (501-750)	
License and SW S&S 12 Months	D15SHLL
Annual SW S&S Renewal	E0JV5LL
SW S&S Reinstatement 12 Months	D15SILL
Per Terabyte Linux on Sys z (501-750)	
License and SW S&S 12 Months	D15SJLL
Annual SW S&S Renewal	E0JV6LL
SW S&S Reinstatement 12 Months	D15SKLL
Per Terabyte (751-1250)	
License and SW S&S 12 Months	D15SLLL
Annual SW S&S Renewal	E0JV7LL
SW S&S Reinstatement 12 Months	D15SMLL
Per Terabyte Linux on Sys z (751-1250)	
License and SW S&S 12 Months	D15SXLL
Annual SW S&S Renewal	E0JV9LL
SW S&S Reinstatement 12 Months	D15SYLL
Per Terabyte (1251-2000)	
License and SW S&S 12 Months	D15SZLL
Annual SW S&S Renewal	E0JVALL
SW S&S Reinstatement 12 Months	D15T0LL
Per Terabyte Linux on Sys z (1251-2000)	
License and SW S&S 12 Months	D15T6LL
Annual SW S&S Renewal	E0JVDLL
SW S&S Reinstatement 12 Months	D15T7LL
Per Terabyte (2001+)	
License and SW S&S 12 Months	D15S4LL
Annual SW S&S Renewal	E0JV2LL
SW S&S Reinstatement 12 Months	D15S5LL
Per Terabyte Linux on Sys z (2001+)	
License and SW S&S 12 Months	D15S6LL
Annual SW S&S Renewal	E0JV3LL
SW S&S Reinstatement 12 Months	D15S7LL
Description	Part number
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End (5725-R38)	
Per Terabyte (1-100)	
License and SW S&S 12 Months	D15S8LL
Annual SW S&S Renewal	E0JV4LL
SW S&S Reinstatement 12 Months	D15S9LL
Description	Part number
IBM Tivoli Storage Manager Fastback for workstations (5724-Y96)	
Per 25 client devices	
License and SW S&S 12 Months	D0BYWLL
SW S&S Annual Renewal	E08A8LL
SW S&S Reinstatement 12 Months	D0BYXLL
Description	Part number

IBM Tivoli Storage Manager Fastback for Workstations Starter Edition (5724-S64) (previously known as IBM Tivoli Continuous Data Protection for Files Starter Edition)

Per Single Client

License and SW S&S 12 Months	D613ALL
SW S&S Annual Renewal	E03U5LL
SW S&S Reinstatement 12 Months	D613BLL

To order a media pack for Passport Advantage, specify the part number in the desired quantity from the following table:

Media pack description and entitled Maintenance offerings description	Part number
IBM Tivoli Storage Manager V7.1.1 Multiplatform, ML Media Pack (5608-E01)	BJ15WML
IBM Tivoli Storage Manager Entry V7.1.1 Multiplatform, ML Media Pack (5725-Q58)	BJ16AML
IBM Tivoli Storage Manager Extended Edition V7.1.1 Multiplatform, ML Media Pack (5608-E02)	BJ15XML
IBM System Storage Archive Manager V7.1.1 Multiplatform, ML Media Pack (5608-E03)	BJ15ZML
IBM Tivoli Storage Manager for Databases V7.1.1 Multiplatform, ML Media Pack (5608-E04)	BJ160ML
IBM Tivoli Storage Manager for Mail V7.1.1 Multiplatform, ML Media Pack (5608-E06)	BJ161ML
IBM Tivoli Storage Manager for Storage Area Network V7.1.1 Multiplatform, ML Media Pack (5608-E07)	BJ162ML
IBM Tivoli Storage Manager for Space Mgmt V7.1.1 Multiplatform, ML Media Pack (5608-E12)	BJ163ML
IBM Tivoli Storage Manager for HSM windows V7.1.1 Multiplatform, ML Media Pack (5608-E13)	BJ164ML
IBM Tivoli Storage Manager for Virtual Environments V7.1.1 Multiplatform, ML Media Pack (5725-A44)	BJ167ML
IBM Tivoli Storage Manager Suite for Unified Recovery V7.1.1 Multiplatform, ML Media Pack (5724-Z12)	BJ166ML
IBM Tivoli Storage Manager Suite for Unified Recovery Archive Option V7.1.1 Multiplatform, ML Media Pack (5724-Z12)	BJ16CML
IBM Tivoli Storage Manager Suite for Unified Recovery - ProtecTIER V7.1.1 Multiplatform, ML Media Pack (5724-Z12)	BJ160ML
IBM Tivoli Storage Manager Suite for Unified Recovery Entry V7.1.1 Multiplatform, ML Media Pack (5725-H25)	BJ154ML
IBM Tivoli Storage Manager Fastback for Workstations V7.1.1 Multiplatform, ML Media (5724-Y96)	BJ165ML
IBM Tivoli Storage Manager Fastback for Workstations Starter Edition V7.1.1 Multiplatform, ML Media (5724-S64)	BJ168ML

IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1 Multiplatform, ML Media Pack (5725-R37)	BJ15MML
IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1.1 Multiplatform, ML Media Pack (5725-R37)	BJ16EML
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End V7.1 Multiplatform, ML Media Pack (5725-R38)	BJ15MNL
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End V7.1.1 Multiplatform, ML Media Pack (5725-R38)	BJ16BML
IBM Tivoli Storage Manager Suite for Enterprise Resource Planning V6.4.2 Multiplatform, ML Media Pack (5608-E05)	BJ169ML

The products listed in the above tables are also available via web download from Passport Advantage.

Note 2: These DVDs are also included in the Tivoli Storage Manager and Tivoli Storage Manager Extended Edition packages.

FlashCopy Manager

The quantity to be specified for the Passport Advantage part numbers in the following table is per terabyte. To order for Passport Advantage, specify the desired part number and quantity.

Description	Part number
IBM Tivoli Storage FlashCopy Manager (5724-X94)	
Per Terabyte (1-12)	
License and SW S&S 12 Months	D0B5GLL
Annual SW S&S Renewal	E07TXLL
SW S&S Reinstatement 12 Months	D0B83LL
Per Terabyte (13-32)	
License and SW S&S 12 Months	D0B6YLL
Annual SW S&S Renewal	E07UBLL
SW S&S Reinstatement 12 Months	D0B84LL
Per Terabyte (33-64)	
License and SW S&S 12 Months	D0B85LL
Annual SW S&S Renewal	E07UTLL
SW S&S Reinstatement 12 Months	D0B86LL
Per Terabyte (65-100)	
License and SW S&S 12 Months	D0B87LL
Annual SW S&S Renewal	E07UULL
SW S&S Reinstatement 12 Months	D0B88LL
Per Terabyte (101-250)	
License and SW S&S 12 Months	D0B8CLL
Annual SW S&S Renewal	E07UXLL
SW S&S Reinstatement 12 Months	D0B8DLL
Per Terabyte (251+)	
License and SW S&S 12 Months	D0B8ELL
Annual SW S&S Renewal	E07UYLL
SW S&S Reinstatement 12 Months	D0B8FLL

To order a media pack for Passport Advantage, specify the part number in the desired quantity from the following table:

Description	Part number
IBM Tivoli Storage FlashCopy Manager V4.1.1 Multiplatform, ML Media Pack	BJ15UML

Ordering information for non-Passport Advantage (AAS ordering systems)

Order handling

IBM Tivoli Storage FlashCopy Manager V4.1.1 (5608-ACB) may be ordered through existing channels using the existing configurator and ordering tools. However, the fulfillment processes have been modified to improve customer records management associated with Software Subscription and Support (SW S&S), often referred to as Software Maintenance. SW S&S will be entitled through Passport Advantage.

5608-ACB, when selected during configuration process with each hardware system, will be enabled for electronic download for the system unit for which the product was ordered. Optionally, software and license only configurations can be created for 5608-ACB based on existing supported hardware system units in your business environment. 5608-ACB is available exclusively via electronic download.

After receipt of an order, you will be required to register for, and accept, Passport Advantage or Passport Advantage Express terms and conditions. Upon registration, you will be provided with a website for the electronic download.

Passport Advantage allows greater flexibility to help you manage software licenses and Subscription and Support renewals. You can now have a common anniversary date for Subscription and Support renewals. The anniversary date, established at the order ship date for the initial product acquisition, will remain unchanged while your Passport Advantage or Passport Advantage Express agreement remains in effect.

To order a basic license, specify the program number and the one-time charge feature number in the quantity desired (maximum quantity of 250).

The program is available via electronic download only. Physical media can be ordered via Passport Advantage once entitled.

The quantity to be specified for the feature numbers in the following tables is per terabyte.

Product number	Product name	Feature number
5608-ACB	IBM Tivoli Storage FlashCopy Manager V4.1.1	
	Per Terabyte (1-12) with 1 Year SW S&S	0001
	Per Terabyte (13-32) with 1 Year SW S&S	0002
	Per Terabyte (33-64) with 1 Year SW S&S	0003
	Per Terabyte (65-100) with 1 Year SW S&S	0004
	Per Terabyte (101-250) with 1 Year SW S&S	0005
	Per Terabyte (251+) with 1 Year SW S&S	0006
	Per 250 Terabyte (251+) with 1 Year SW S&S	0007

Rapid Application Software bundle

To order a Rapid Application Storage Manager or a Rapid Application Backup bundle for program numbers 5608-ACB, 5608-FCY, 5608-R16, 5608-R13, 5608-R17, and 5608-R18, specify the desired no charge feature number below, where feature number 6398 applies only to RASM and feature number 6399 applies only to RAB.

Feature number	Description
6398	unlimited users entitlement
6399	unlimited external users entitlement

Software Subscription and Support (SW S&S)

This software license includes SW S&S, also referred to as Software Maintenance, for a period of 12 months from the date of acquisition. Extending coverage from two to five years from date of acquisition may be elected.

To order, specify the SW S&S program number and the desired registration feature number. With the exception of SW S&S 1 Year No Charge Registration, a one-time charge applies.

IBM Tivoli Storage FlashCopy Manager SW S&S Registration

SW S&S PID 1 Year: 5608-FCY

Description	Feature number
Per Terabyte (1-12)	
-- SW S&S 1 Year No Charge Registration	0001
Per Terabyte (13-32)	
-- SW S&S 1 Year No Charge Registration	0002
Per Terabyte (33-64)	
-- SW S&S 1 Year No Charge Registration	0003
Per Terabyte (65-100)	
-- SW S&S 1 Year No Charge Registration	0004
Per Terabyte (101-250)	
-- SW S&S 1 Year No Charge Registration	0005
Per Terabyte (251+)	
-- SW S&S 1 Year No Charge Registration	0006
Per 250 Terabyte (251+)	
-- SW S&S 1 Year No Charge Registration	0007

SW S&S PID 2 Year: 5608-R16

Description	Feature number
Per Terabyte (1-12)	
-- SW S&S 2 Year Registration	0001
Per Terabyte (13-32)	
-- SW S&S 2 Year Registration	0002
Per Terabyte (33-64)	
-- SW S&S 2 Year Registration	0003
Per Terabyte (65-100)	
-- SW S&S 2 Year Registration	0004
Per Terabyte (101-250)	
-- SW S&S 2 Year Registration	0005
Per Terabyte (251+)	
-- SW S&S 2 Year Registration	0006
Per 250 Terabyte (251+)	
-- SW S&S 2 Year Registration	0007

SW S&S PID 3 Year: 5608-R13

Description	Feature number
Per Terabyte (1-12)	
-- SW S&S 3 Year Registration	0001
Per Terabyte (13-32)	
-- SW S&S 3 Year Registration	0002
Per Terabyte (33-64)	
-- SW S&S 3 Year Registration	0003
Per Terabyte (65-100)	
-- SW S&S 3 Year Registration	0004
Per Terabyte (101-250)	
-- SW S&S 3 Year Registration	0005
Per Terabyte (251+)	
-- SW S&S 3 Year Registration	0006
Per 250 Terabyte (251+)	
-- SW S&S 3 Year Registration	0007

SW S&S PID 4 Year: 5608-R17

Description	Feature number
Per Terabyte (1-12)	
-- SW S&S 4 Year Registration	0001
Per Terabyte (13-32)	
-- SW S&S 4 Year Registration	0002
Per Terabyte (33-64)	
-- SW S&S 4 Year Registration	0003
Per Terabyte (65-100)	
-- SW S&S 4 Year Registration	0004
Per Terabyte (101-250)	
-- SW S&S 4 Year Registration	0005
Per Terabyte (251+)	
-- SW S&S 4 Year Registration	0006
Per 250 Terabyte (251+)	
-- SW S&S 4 Year Registration	0007

SW S&S PID 5 Year: 5608-R18

Description	Feature number
Per Terabyte (1-12)	
-- SW S&S 5 Year Registration	0001
Per Terabyte (13-32)	
-- SW S&S 5 Year Registration	0002
Per Terabyte (33-64)	
-- SW S&S 5 Year Registration	0003
Per Terabyte (65-100)	
-- SW S&S 5 Year Registration	0004
Per Terabyte (101-250)	
-- SW S&S 5 Year Registration	0005
Per Terabyte (251+)	
-- SW S&S 5 Year Registration	0006
Per 250 Terabyte (251+)	
-- SW S&S 5 Year Registration	0007

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- IBM Tivoli Storage Manager Suite for Unified Recovery - ProtecTIER Option V7.1.1 (5724-Z12): L-BEBY-9LTRAG
- IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1.1 (5725-R37): L-BEBY-9LTSDS
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Corrections

(Corrected on October 17, 2014)

Updated information in the Overview.